Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Transplantation

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ALEMTUZUMAB FOR CHRONIC LUNG ALLOGRAFT DYSFUNCTION

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PURPOSE: Chronic lung allograft dysfunction (CLAD) remains the leading cause of long-term mortality after lung transplantation (LTX) with no proven therapeutic strategies except re-transplantation. Anecdotal reports suggest a role for the lymphocyte depleting agent, Alemtuzumab (AL), an anti-CD52 monoclonal antibody. We reviewed our experience with AL for the treatment of refractory CLAD.

METHODS: Eight consecutive LTX recipients were identified. AL was given as a single subcutaneous dose of 30 mg. Cell-cycle inhibitor therapy was held and valganciclovir and azole prophylaxis were given for at least 6 months after AL treatment. The slope of FEV1 3 months before and after AL were compared. Complications of AL therapy including infections and survival were assessed.

RESULTS: The cohort consisted of 5 males and 3 females with a median age at time of AL administration of 66 y (range: 50-72). Time post-transplant was 2.43 y (range: 1.4-5.4). Pre-transplant diagnoses were COPD (n=3), and 1 each of CF, bronchiectasis (immotile cilia syndrome), IPF, PVOD and IPAH. All subjects were bilateral recipients and 1 was post-left pneumonectomy early after transplant. All had a predominantly obstructive CLAD phenotype, stages 4 (N=2), 3 (N=4), 2 (N=1) and 1 (N=1) with rapid loss of lung function. The median slope of decline in FEV1 in the 3 months prior to AL was -336ml/m (range: -39 to -552) compared with +24 ml/m (range: -171 to +48) during the 3 months post AL administration (P = 0.016). No acute reactions to AL treatment were observed. Clinically symptomatic infections occurred in 4 patients following AL. Community acquired respiratory viral infections were observed in 2 (parainfluenza and coronavirus on 2 separate occasions in 1 patient and rhinovirus in another). Pseudomonas tracheobronchitis developed in 1. These infections were considered mild-moderate. One subject developed new parenchymal opacities with isolation of Rasamsonia argillacea and Mycobacterium fortuitum. Two patients died due to progressive CLAD 3 and 6 months after AL. The other six are alive at a median follow-up time of 12 months (range: 7 – 20). Kaplan-Meier survival estimate at one year was 75%. At last follow-up, CLAD stages among survivors was 4 (N=1), 3 (N=4) and 2 (N=1).

CONCLUSIONS: AL therapy was associated with a significant attenuation in lung function decline in lung transplant recipients with rapidly progressive CLAD. Treatment was generally well tolerated with few serious infection complications.

CLINICAL IMPLICATIONS: AL should be considered for rapidly progressive CLAD. Randomized controlled trials are required to establish efficacy and safety.

DISCLOSURES: No relevant relationships by Reda Girgis, source=Web Response

No relevant relationships by Ryan Hadley, source=Web Response

no disclosure submitted for Anupam Kumar;

No relevant relationships by Cameron Lawson, source=Web Response

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